

To know the elderly's ideas and attitudes about polypharmacy and deprescribing: a qualitative study

Nicole Isabel Vicente Foreman

Dissertação para obtenção do Grau de Mestre em
Medicina
(Mestrado Integrado)

Orientador: Prof. Doutor José Augusto Rodrigues Simões
Co-orientador: Doutor Pedro Augusto Gomes Rodrigues Marques Simões

abril de 2021

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Acknowledgements

I would like to express my gratitude to Prof. Doutor José Augusto Rodrigues Simões and Doutor Pedro Augusto Gomes Rodrigues Marques Simões, my dissertation supervisors, for their help and guidance during this research work, as well as, for the opportunity to collaborate on the thematic of deprescribing.

I would like to thank the Associação Centro Social Sagrado Coração de Maria do Ferro and to all the people who participated in the focus group.

Finally, I would like to thank my parents for their support throughout my studies.

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Resumo

Introdução: A prevalência de polimedicação e de medicamentos potencialmente inapropriados nos idosos é considerada alta, tornando-os assim um grupo vulnerável a efeitos adversos relacionados com a medicação. Uma revisão da medicação dos idosos juntamente com a desprescrição dos medicamentos potencialmente inapropriados com a ajuda de um profissional de saúde é chamada de desprescrição. Diversas barreiras e facilitadores influenciam este processo. Portanto, o seu conhecimento ajudará os profissionais de saúde a abordar melhor a desprescrição. Este estudo tem como objetivos conhecer as atitudes e ideias dos idosos sobre a polimedicação e a desprescrição e inferir sobre as principais barreiras e facilitadores da desprescrição.

Metodologia: Procedeu-se a uma abordagem qualitativa, através de um “*focus group*”, com um grupo de idosos polimedicados de um centro de dia. Posteriormente, seguiu-se a transcrição e codificação em temas e subtemas, com base em estudos anteriores. Cada um destes corresponde a uma barreira ou facilitador da desprescrição.

Resultados: Um total de onze idosos participaram no “*focus group*”. As ideias e atitudes dos idosos identificadas foram agrupadas em cinco barreiras (adequação da desprescrição, influências, processo, medo e outros) e quatros facilitadores principais (adequação da desprescrição, influências, processo e não gostar da medicação).

Conclusão: Embora as crenças dos idosos em relação ao benefício/necessidade da medicação prevaleçam, opiniões contraditórias sobre a falta de benefício/necessidade, a experiência de efeitos adversos/interações medicamentosas e a complexidade e número de medicamentos, podem influenciar positivamente a desprescrição. A influência dos profissionais e a confiança dos idosos nos seus médicos, mostraram ser essenciais na tomada de decisão, atuando como uma barreira ou facilitador. Portanto, as atitudes e ideias dos idosos são complexas e podem influenciar a sua vontade em desprescrever. O benefício da medicação foi uma das barreiras mais abordada, e a experiência de efeitos adversos/interações medicamentosas, um dos facilitadores mais abordados.

Palavras-chave

Polimedicação; desprescrição; medicamentos potencialmente inapropriados; idosos; barreiras e facilitadores

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Resumo Alargado

Dada a prevalência da polimedicação e de medicamentos potencialmente inapropriados nos idosos, estes são um grupo vulnerável a reações adversas medicamentosas. Entende-se por polimedicação a toma de 5 ou mais medicamentos e por medicamentos potencialmente inapropriados, medicamentos cujos riscos são superiores aos benefícios. Uma revisão da medicação dos idosos juntamente com a desprescrição dos medicamentos potencialmente inapropriados com a ajuda de um profissional de saúde é chamada de desprescrição. Vários estudos demonstraram que uma elevada percentagem de idosos polimedicados aceita parar um medicamento se fosse recomendado pelo seu médico. No entanto, existem diversas barreiras e facilitadores que influenciam este processo. São exemplo, a perceção pelo doente de que uma medicação é adequada, medo de sintomas de abstinência, não gostar de tomar a medicação e a existência de um processo de desprescrição. Portanto, o seu conhecimento ajudará os profissionais de saúde a abordar melhor a desprescrição.

Este estudo tem como objetivos conhecer as atitudes e ideias dos idosos sobre a polimedicação e a desprescrição e inferir sobre as principais barreiras e facilitadores da desprescrição.

Para alcançar os objetivos descritos procedeu-se à realização de um estudo qualitativo com recurso à metodologia de “*focus group*” com um grupo de idosos polimedicados de um centro de dia. A sessão foi audiogravada e moderada por dois moderadores que seguiram um guião previamente elaborado. Posteriormente, procedeu-se à análise dos resultados, com a transcrição e codificação das transcrições em temas e subtemas, tendo por base dois estudos anteriores. Cada um dos temas e subtemas corresponde a uma barreira ou facilitador da desprescrição.

Onze idosos de centro de dia participaram no “*focus group*”. As ideias e atitudes dos mesmos, foram agrupadas em cinco barreiras (adequação da desprescrição, influências, processo, medo e outros) e quatros facilitadores principais (adequação da desprescrição, influências, processo e não gostar da medicação). A destacar como barreiras, o benefício/necessidade da medicação, a medicação não fazer mal e o medo do ressurgimento dos sintomas. Contrariamente, a falta de benefício ou necessidade da medicação, o número de medicamentos, bem como a experiência de efeitos adversos ou interações medicamentos mostraram ser uma influência a favor da desprescrição.

Embora as crenças dos idosos em relação ao benefício/necessidade da medicação prevaleçam, opiniões contraditórias sobre a falta de benefício/necessidade, a experiência de efeitos adversos/interações medicamentosas e a complexidade e número de medicamentos

podem influenciar positivamente a desprescrição. No entanto o medo de retoma de sintomas parece ser para alguns participantes superior à ideia de querer reduzir a medicação por não gostar dela, por exemplo, devido ao número de medicamentos.

A não familiaridade dos doentes sobre estas temáticas demonstrou também ser uma barreira à desprescrição. A colocação do ónus da abordagem do tema no médico, também foi notável. Tendo em conta que as preferências e valores dos idosos são importantes, e sendo eles quem experienciam um novo sintoma decorrente da medicação, o ónus da abordagem poderá partir do idoso também. Os profissionais de saúde, demonstraram ser portadores de um papel importante na tomada de decisão dos idosos, tanto como um suporte como uma influência. A confiança dos idosos no médico, tanto pelo seu conhecimento médico, tanto pelo seu conhecimento individual sobre cada um dos seus doentes, discrimina a influência do médico como sendo uma barreira ou um facilitador, dependendo da situação. Outras influências, como a complexidade da medicação e o pouco conhecimento sobre a mesma poderão também ser um facilitador ou uma barreira. Portanto, a capacitação dos idosos sobre a sua medicação, incluindo benefícios e riscos, bem como a inclusão destes termos na linguagem comum das consultas, poderá contribuir para uma maior facilidade na abordagem do tema da desprescrição e na tomada de decisão.

As atitudes e ideias dos idosos são complexas e podem influenciar a sua vontade em desprescrever. Investigações futuras continuas, irão fornecer um maior leque de opiniões, reforçando a desprescrição como uma abordagem centrada no doente.

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Abstract

Introduction: The prevalence of polypharmacy and potentially inappropriate medications is considered high in the elderly, making them vulnerable to adverse drug events. Elderly's medication review followed by cessation of potentially inappropriate medications with a health professional's help is called deprescribing. Several barriers and enablers influence this process. So, its knowledge can help health professionals to better approach deprescribing. This study aims to understand the elderly's attitudes and ideas about polypharmacy and deprescribing and infer the main barriers and enablers to deprescription.

Methodology: A qualitative approach through a focus group was carried out with older adults under polypharmacy from an adult day-care centre. Transcription and codification, into themes and subthemes based in previous frameworks was made. Each one of those corresponds to barriers and enablers of deprescription.

Results: Eleven older adults participated in the focus group. The identified elderly's ideas and attitudes could be clustered into five main barriers (appropriateness, process, influences, fear and others) and four main enablers (appropriateness, process, influences and dislike).

Conclusion: Although elderly's strong beliefs regarding medication benefits and necessity prevail, contrary opinions regarding lack of benefit/necessity, the experience of drug interactions/side effects, medication complexity/number may influence their willingness to deprescribe positively. The health professionals' influence and the patients' trust in their doctors showed to be essential for decision-making as either a barrier or an enabler. Therefore, the elderly's attitudes and ideas are complex and may influence their willingness to be deprescribed. The medication benefit was a high barrier approached, and side effects/drug interactions experiences, one of the most enablers approached.

Keywords

Deprescribing; polypharmacy; potentially inappropriate medications; elderly; barriers and enablers

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Contents

1.Introduction	1
2.Methodology	3
2.1. Design	3
2.2. Participants' selection and recruitment	3
2.3. Data capture, coding and analysis	4
3.Results	5
3.1. Sample characteristics	5
3.2. Barriers and Enablers	5
3.2.1 Appropriateness of deprescribing	5
3.2.2 Process	10
3.2.3 Influences	11
3.2.4 Fear	14
3.2.5 Dislike	15
3.2.6 Others	15
4.Discussion	18
4.1. Strengths	22
4.2. Limitations	22
5.Conclusion	24
5.1. Competing interests	24
6.Bibliography	25
7.Appendices	28
7.1. Appendix 1 – Study's protocol	29
7.2. Appendix 2 – Informed consent form	31
7.3. Appendix 3 – Focus Group's Script	32
8.Annexes	33
8.1. Annex 1 - Approval from the Ethics Committee of the Beira Interior University	34
8.2. Annex 2 -Approval from the Health Regional Administration of the Centre	35

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

List of Tables

Table 1 - Sample Characteristics.....	5
---------------------------------------	---

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

List of Abbreviations

M	Moderator
P	Participant

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

1. Introduction

The elderly are a vulnerable group to adverse-drug reactions, either due to polypharmacy either due to age-related changes in pharmacokinetics and pharmacodynamics.(1,2) According to a review, besides patient-related factors, system-level factors also take part in the polypharmacy's risk factors. The patient-related factors would be multiple medical conditions, multiple subspecialist physicians and residing in a long-term care facility. The system-level factors would be poorly updated medical records, automated refill services, and prescribing to meet disease-specific quality metrics.(3)

Although there is no consensus regarding polypharmacy's definition, the most commonly used is the simultaneous use of five or more drugs.(4) Besides this numerical definition, an alternative and more clinical definition would be using drugs not indicated, not effective, or that constitute a therapeutic duplication.(5) This definition highlights that the number of drugs taken does not indicate the appropriateness of therapy as all of the drugs may be or may not be, clinically necessary and appropriate for the patient.(4)

Polypharmacy, namely inappropriate polypharmacy, besides increasing the risk of adverse drug events (disability, falls, frailty, inappropriate medication use, long-term care placement, medication nonadherence) can carry risks as decreased quality of life and increased mortality, as well as, increased use of the health care system (clinic visits, emergency department visits, hospitalizations).(3)

According to recent studies, 77% of older Portuguese population is under polypharmacy, and 68.6% has one potentially inappropriate medication.(6,7) Potentially inappropriate medications are those whose risks outweighs the benefits. That includes drugs with a high risk of harm, unnecessary or ineffective, and those that do not fit with the goals of treatment or the patient values and preferences and those that are overly burdensome.(8) Therefore, being the elderly more vulnerable to potentially inappropriate medication, they are the ones taking most advantages too.(9,10) So, it is essential to carefully review the elderly's medication, followed by potentially inappropriate medication deprescription.

Despite the vast number of deprescribing definitions, according to a systematic review, "Deprescribing is the process of withdrawal of an inappropriate medication, supervised by a health care professional with the goal of managing polypharmacy and improving outcomes".(11) Other definitions also add drug substitution or dose reduction, as part of the process, and tapering as needed too.(9,11,12)

After the gathering of the medication history and identifying potentially inappropriate medications, determining whether medication can be ceased, and prioritization follows. For last comes, planning and initiation, with monitoring, support and documentation.(13) This action is holistic and patient-centred, as it encompasses each patient's medication list,

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

medical conditions and functioning status as well as the patient's preferences, values, goals of care and suspicion of adverse drug reactions.(13–15)

According to previous studies, around 90% of the older adults reported that would be willing to stop taking one or more medications if their physician said it was possible.(9,16) However, this number does not align with the number of older adults who would actually go through deprescribing. A recent study reported that out of the 86% who would be willing to stop only 41% acted accordingly.(17) Several barriers and facilitators influence this process, so their knowledge, through the investigation of the older adult's beliefs, would help health professionals to approach this subject more effectively and with better outcomes.

Several qualitative studies have already identified barriers and facilitators to deprescribing. Some of the established barriers to deprescribing are, the beneficial effect and the need of the medication, fear of symptoms/condition return, fear of withdrawal symptoms, previous bad experiences with stopping, and distrust. Established enablers are the existence of a process, lack of benefit, fear of or experiencing side effects, number and complexity of medications, good experiences with deprescribing, trust and cost.(18–25)

This study aims to understand the elderly's attitudes and ideas about polypharmacy and deprescribing and infer the main barriers and enablers to deprescribing.

2. Methodology

2.1. Design

To achieve the study's objectives, we used a *focus group*, a technique of collecting data in the scope of qualitative research, to access how the elderly integrated information about polypharmacy and deprescribing (a topic likely to be new to them) with their existing knowledge of medications.(26) The aim of a focus group is group interaction on a topic of interest and the constituent elements of the group generally have a common characteristic that is relevant for the study. This type of method allowed the participants to hear each other's views and exchange ideas between them, in their own language, helping to clarify individual understanding, attitudes and ideas. Additionally, by using a focus group instead of individual interviews, allowed the participants to conduct the discussion to other relevant points not anticipated by the researchers. Finally, this qualitative method, involving face-to-face contact with the participants, ensured that we could be confident that the communication of the information was effective, because they could make questions to clarify some topics, and therefore we could assess their understanding and identify possible sources of confusion.(27,28)

This study is integrated into the phase II of the following project, "Deprescribing in primary care in Portugal (DePil17-20)", which has the approval from the Ethics Committee of the Beira Interior University (Appendix 1) and the Health Regional Administration of the Centre (Appendix 2).

Of the five day-care centres contacted only one accepted to collaborate. A previous contact was made with the adult day-care centre, which gave a positive acceptance. Later, the study protocol (Annex 1) together with the informed consent form (Annex 2) and the script (Annex 3) were delivered to the adult day-care centre.

The study's objectives were explained to the participants, and informed consent was obtained for participation in the study and session audiotaping.

2.2. Participants' selection and recruitment

We recruited older adults from adult day-care centre, in Beira Interior, Portugal. The inclusion criteria were older adults with 65 or more years under polypharmacy (taking 5 or more drugs per day), 50% women and 50% men, and 50% between the ages of 65 and 75 and 50% above 75 years old. Due to COVID-19 pandemic and resulting limitations a complete purposive sampling with the inclusion criteria was not possible and participants without polypharmacy were also accepted.

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

2.3. Data capture, coding and analysis

The focus group discussion lasted about an hour, it was audiotaped and held by two moderators, who followed a previously made script, with open-ended questions on the subject (Annexe 3). Moments of information exposition were intercalated with moments of questions to the participants.

The session records were reviewed and transcribed verbatim, followed by a thematic analysis aiming to identify a set of main themes that captured the diverse views and feelings expressed. Two researchers, independently, reviewed the transcript and adequately allocated each key piece of text to themes and subthemes.(29,30) Each one of these corresponds to a barrier and an enabler of deprescription. We based our codification in five core themes (appropriateness, process, influences, fear and dislike) and correspondent subthemes from two frameworks.(12,18)

3. Results

3.1. Sample characteristics

The total number of participants was eleven, six women and five men. Of those, one participant is less than 75 years old, and 10 are more than 75 years old. Most participants, seven, take 5 or plus medicines, with one participant taking 4 and three more participants taking, 2, 1 and 0 medicines, respectively. (Table 1)

Table 1: Sample characteristics

Age	Participants (n)
60-69	1
70-79	2
80-89	5
90-99	3
Medicines (n)	Participants (n)
5 or +	7
4	1
3	1
1	1
0	1

3.2. Barriers and Enablers to deprescribing

3.2.1 Appropriateness of deprescribing

Appropriateness would be either an enabler or a barrier if there were an agreement or disagreement with appropriateness of cessation.(12)

Benefit of medication use (barrier)

Several participants reported feeling good with their medication, considering the medication beneficial and needed.

“But I am fine, there are no problems. The medication is regulated. And I always, always, always take it.”

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

M (Moderator): "And when you take medication when you are in pain, does it get better? Is the medication you take enough? (...)"

P (Participant): "Yes, I feel fine."

Those with good experiences with their medication would be more likely continuing it.

"We have always been well with them. We keep going until we leave."

"(...) Because we saw that pills do good."

Other participant highlighted the importance and benefit of the medication as it made him feel better with their condition.

"It is the beginning of a disease of 'forgetfulness' or what it is... But I have to take these medicines to calm myself and for the 'forgetfulness'. Sometimes I forget a plate or anything... I forget... I am now taking these medicines to remember, and I am really well now..."

Lack of benefit or necessity of medication use (enabler)

Two participants stated that their medication was not necessary since they believed they had recovered from their disease(s). Therefore, if the condition had gone, the medication was no longer needed.

P: "I take two that I should not take, and the Doctor doesn't take them ..."

M: "And why shouldn't you take them?"

P: "Because I no longer have anything in my heart, and I am no longer sad and crying as I was, and they do not take me these two medicines."

M: "So you think you take medication that you do not need?"

P: "It is just that I didn't need it."

M: "And when he said it was to stop what did you feel? Were you happy?"

P: "I was happy ... I was the one who find I was more certain in my head."

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

When asked about continuing or discontinuing a medicine more harmful than helpful, their opinion was to go for cessation.

M: "One of the reasons for us to stop the medicines is when they are doing harm. We also do not want the person to continue taking a medicine that is causing harm. We have to go on pondering. Do you agree with this? That we should stop medicines that are doing harm? Or does anyone think a medicine should always be continued because it has a good side? Someone thinks that when a medicine is doing harm it should be stopped or there are situations where it should be kept."

P: "Yes, stop."

Acceptance of medical condition (barrier)

Quite a few participants recognize that they have a specific condition for which the use of their medication is necessary for its management.

"This thing that I have has been working on since 2004. It is the beginning of a disease of 'forgetfulness' or what it is. But I have to take these medicines to calm myself and to the 'forgetfulness'."

"No, I have to take them. If I don't take them, I can't walk anymore. The Doctor here already knows more or less the ill I have. But now that we had much time at home... and I got dizzy in my head when I went to bed... everything around, everything around. My daughter took me to the hospital. I was prescribed those..., but it is only until it's over, when it's done, that's it...to don't take more. But even so, look here, I also have my legs swell up a lot, I even have them here in the air ... I have a lot of diseases, I already had an operation here on my hip, I have the ill of... And so, I have to take them."

"I take every day. I suffer from the spine. I have arthrosis. When it hurts is when I take more. I take 1 or 2 or 3 a day. When I have no pain, I won't take them, isn't it? For the prostate it's every day. I take one every day for the prostate. And then for the pain, it's when I'm in pain that I'll take it."

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Alternative available (enabler)

One participant mentioned using, besides the medication, a tea as an alternative treatment. Although he mentioned that it could not be as beneficial as he thinks, in his opinion, he feels better with it.

"I just was again, a week ago, was again at night... It still is, isn't it? I take those pills that I have there that are for pain, for the acid uric acid, and it gets better. Now I have had a tea with rosemary... it gives me the impression that it is doing me well.... It may not be, but it gives me the impression that it is doing me well."

Lack of current harm (barrier)

One participant expressed that his medication did not cause harm. Then the sense of lack of harm could be a barrier.

"I feel good with the ones I take. I think it doesn't harm me."

Drug interactions (enabler)

Two participants questioned the possibility of drug interactions. One participant even described a bad experience with taking two medicines together, attributing it to their interaction.

"Isn't one medicine on top of the other does harm? (...) Sometimes when we are a little afflicted... I was just very afflicted of the nose, I haven't blown my nose in a long time, and it stops here in the throat.... I had to take one of those pills to put into the water, that are good for the throat, but I had taken another, and I got unwell."

"Every time I go there, I'm always asking the doctor that there're maybe some (medicines) who are doing harm to the others... he says, 'it can't, it can't'."

Long term use (barrier)

Taking a medication for so long could be a barrier to deprescribing.

"I already take it for many years..."

Even though the effect is not present, it seems they keep the medicine, as they have already been taking it for so long.

M: "So do you continue to take them if they no longer work?"

P: "I still take them..."

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Side effects (enabler)

One participant recognized that medications can cause side effects.

M: "There are actually certain medications that are good for one thing ..."

P: "But bad for the other."

A few participants recalled their experiences with side effects that they attributed to a medicine.

P: "I dream a lot. I'm always dreaming. Always dreaming. Dreaming and waking up, dreaming and waking up."

M: "And do you think this is from the medication?"

P: "I even swear it is from the two pills I take at night..."

M: "And those two you take do you think they do you good, or do you feel they don't have the desired effect?"

P: "They attack my stomach."

The sentences below are examples of side effects as an enabler to deprescribing. In the first example, after noticing a side effect and talking to his doctor, a deprescription was made.

"I noticed that it hurt me ... And he told me to stop with them."

"I haven't been taking those for the stomach for a long time, because they've already taken polyps from my stomach ..."

Desire to increase dose of medication (barrier)

One participant expressed the desire to increase the dosage, due to lack of effect of the current dose and the "trouble" of breaking a tablet in half.

"It's just that if I took a 'higher pill' I wouldn't need to take more half pill. There are packages that have more milligrams than others. No longer reaches 'sleep pressure'."

Mistrust in the original prescriber who initiated the medication (enabler)

As mentioned, mistrust in the prescriber is a factor that may lead to stop taking a medicine previously prescribed.

M: "And if there is no trust in the doctor, what happens?"

P: "What happens? It is not to take, exactly ..."

M: "Don't trust, may not fulfil with what he recommends."

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

3.2.2 Process

Discussion (barrier)

Participants find it important to discuss the matter with a professional before deciding whether or not to cease a medicine. The physician was the person most mentioned. The pharmacists also were mentioned as a professional help to reach, especially as the doctor was more difficult to get in touch with.

M: "What if it was a member of the family or a friend saying to stop the medication? Would you stop?"

P: "I wouldn't stop with it without first contacting someone who knew, for example, the pharmacy. Sometimes the doctor is more difficult ... at least in the pharmacy ... in fact, I have already done that, I have already gone to the pharmacy to ask how it is ..."

M: "First, you would ask a professional, is that it?"

P: "Yes, they (pharmacists) are also within the subject, obviously not everyone is going to say it just to say, isn't it?"

M: "What if it was a member of the family or a friend saying to stop the medication? Would you stop? (...)?"

P: "I would go ask the doctor ..."

This participant mentions the doctor as the person who should take the first step in the deprescribing approach.

"But let's see something ... This (deprescribing) is the doctor himself who has to do it? Not us, I will not do it without the doctor telling me that I can do it."

When questioned about polypharmacy and deprescribing, no one had an opinion. Regarding the concept of potentially inappropriate medication, they also had no opinion on it. We imagine it is a less-discussed subject in a doctor's appointment. Health unawareness on this matter could interfere with deprescription.

M: "Nobody knows what this word means (polypharmacy)?"

P: "Right, it's these words that we don't know what they mean."

M: "And this word (deprescribing), do you know what it is?"

P: "No ... I hear, I just have trouble to understand ..."

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Discussion (enabler)

Discussion of the process and the reason the doctor will stop the prescription of a medicine were some factors pointed as enablers.

"The doctor told me, when about the prostate... I went there and didn't prescribe anything to me. 'So, Doctor, won't you prescribe me anything?', 'Oh Mr(s) X what tells you that I'm going to prescribe a medication to the prostate if it does well to the prostate, but it will do harm to other sides.' He had the courage to tell me that."

Having their doctor's support was another factor pointed out as key in ceasing a medicine.

M: "What do you think about stopping a medication with the help of the doctor when it is no longer needed?"

P: "Stop."

M: "Everyone agrees?"

P: "I think so."

Trial (enabler)

One participant mentioned willing to try a deprescription on a trial basis.

M: "But would you like to try it (deprescribing)?"

P: "Yes."

3.2.3 Influences

Health professionals (barrier)

The doctor can be an influence as he keeps prescribing a medicine (without explaining the reason) even though is the patient who desires to stop a medication.

"I have talked to him (the specialist doctor) many times, but he says he doesn't take them (deprescribe)."

Patients trust their doctors because of their medical knowledge and knowledge about their conditions. Therefore, why should the patient stop taking that medication, was an idea implied.

"It's like so, and here we are. They know (doctors), they studied for that ..."

"The Doctor here already knows more a less the ill I have."

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Once more, as they trust their doctors, they are satisfied with their medication.

M: *"Do you think doctors prescribe the right number of medications?"*

P: *"It was the doctor who prescribed them to me. I'm already happy with the ones I needed."*

Besides doctors, pharmacists were also mentioned as an influence on keeping a medicine.

"The sleeping pills, one of these days, I brought the heart pressure too high because I stopped taking them. Then the lady from the pharmacy even told that I always had to take those pills."

Health professionals (enabler)

Otherwise, if their doctors advised stopping a medicine, they would go along with it, because they trust them and in their medical knowledge.

"Had ones that I left out, but I haven't taken them for a long time... but it was the doctor who said."

M: *"So you are saying that if the doctor said to stop (some medication), you wouldn't have any problem stopping it?"*

P: *"If the Doctor said to me, 'Look, you don't need it anymore'... Four years ago, I was very forgetful, I was going here and there... 'what was I going to do?' And would go back. 'Doctor I'm very forgetful, prescribe me some pills...' He prescribed me some pills...One of these years, 'Look, you don't need it anymore' ... It is no longer necessary, and he took them off. (...) Yes, he took them off... I didn't ask for it, but he said I didn't need it anymore..."*

M: *"If you had to stop any medicine, would you be worried about something? What would you worry about?"*

P: *"It depends on what it was. If I had to stop it ... it would be the doctor who told me to stop and naturally he is who knows."*

M: *"And wouldn't you be worried about anything?"*

P: *"I don't know ... maybe not, if he said to stop, it was because it (the medicine), wasn't doing me well ... Naturally, I wouldn't be upset."*

"It's so, and here we are. They (doctors) know, they studied for it ..."

M: *"So do you consider that the trust is fundamental?"*

P: *"It's fundamental, exactly."*

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Previous Bad experiences with stopping (barrier)

One participant reported a bad experience with deprescription, with the experience of symptoms after stopping a medicine.

"The sleeping pills, one of these days, I brought the heart pressure too high because I stopped taking them. Then the lady from the pharmacy even told that I always had to take those pills."

Previous Good experiences with stopping (enabler)

Several participants mentioned a good experience with stopping, either because of their condition's improvement or because it was held with help/indication of their doctor.

P: "(Deprescribing) It has already happened to me ..."

M: "Like that example of the prostate's medication."

P: "I no longer have it... they already took it."

M: "It was made description."

P: "It was precisely this doctor who told me that he would not prescribe it because he was not going to prescribe a medicine that would be good for the prostate and that would be bad for other things."

"There were some (medication) that I left out, but I haven't taken them for a long time... but it was the doctor who said it."

"I used to take one, here for the thyroid, but they had already taken it."

Other non-person influences

This would be the complexity and number of medicines and not knowing each tablet's function. Medication complexity and patient's knowledge about their medication could be either a barrier or an enabler, as it could difficult the discussion or it could be a reason to start the discussion.

M: "(...) Do you know why you take each medicine?"

P: "So-so... There are so many that I end up shuffling everything. I have for the poor circulation, for example. I don't know ... There are so many things ..."

"For cholesterol, for diabetes, for the heart, it's everything..."

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

3.2.4 Fear

Fear of return of condition (barrier)

If they stopped a medicine, they feared to start felling or getting worse, in terms of disease progression and pain.

M: "Here a colleague of yours is saying that you shouldn't stop ... And why do you think medication should not be stopped?"

P: "Because the doctor says if I stop, I'll get worse."

M: "In addition to Mrs. X, who says he takes too much medication, for the heart and when feels sadder, does anyone else think is taking too much medication? Or is the rest happy with the number of medications you are taking?"

P: "I think so. If they take them off, I don't feel well."

"But we have to take them continuously, because if we don't take them continuously... then it's not all right... We noticed that the body sometimes ..."

"I take one every day. And I can't stop it. If I stop the prostate... come on, come on... there was no need for an operation yet, that's what has been worthen to me... I can't stop it. I have to take these pills without fail, every day, if one day fails, I start immediately with prostate problems."

"I have to take them. If I don't take them, I can't walk anymore."

M: "If you had to stop any medicine, would you be worried about something?"

P: "Yes, I would."

M: "And why?"

P: "Because it would start to hurt more, the problem would be that."

M: "Would your concern be that you would get worse?"

P: "Exactly."

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

3.2.5 Dislike

Dislike (enabler)

Dislike of medication is implicit as taking too many medicines.

M: "And about the medication you take, do you think it is adequate, do you think you take too much?"

P: "I think they're too much... I don't know... I take 15-16."

Cost (enabler)

The medication cost could be a problem for them if they had no help with their health expenses (state co-payments).

M: *"From those who take a lot of medicines, who thinks that he/she spends a lot of money in the pharmacy?"*

P: *"What's worth is the discounts."*

Besides that, if a medicine was stopped, it would not be a problem as they could save money.

M: *"And what worries you if you had to stop medication? What would you be worried about?"*

P: *"We would keep the money in our pockets, and the health would continue..."*

M: *"And when he said it was to stop what did you feel? Were you happy?"*

P: *"I was happy (...). And I kept the money in my pocket... it was expensive ..."*

3.2.6 Others

Habit (barrier)

A medicine as either causing addiction/dependency or not could be a barrier. Otherwise, afraid to cause dependency could be an enabler, although it was not mentioned. The sleeping medication was the medication most mentioned when this theme was approached.

M: *"Do you think that medicines create addiction or dependency?"*

P: *"No. It's just more the stomach one."*

M: *"Do you think drugs cause dependency?"*

P: *"I don't think so."*

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Two participants reported the need to take more tablets since the original dose had no longer sufficient effect. One participant admits “to be used to them” with experience of possible withdrawal-effects.

“I got used to them, and now ... The sleeping pills, one of these days, I brought the heart pressure too high because I stopped taking them. Then the lady from the pharmacy even told that I always had to take those pills. I was taking one, and it had no effect, now the doctor told me to break one in half. I take one and a half...”

M: “But you said that the sleeping medicine doesn't always work. That you sometimes wake up and have to take another one...”

P: “I always take one medicine, when I lie down (...) but when it's 4:00 am I have to break a pill in half...”

M: “But before it was enough, now you need one and a half.”

P: “It's just that if I took a ‘higher pill’ I would not need to take another half pill. There are packages that have more milligrams than others. No longer reaches ‘sleep pressure’.”

M: “This means that the body already has gotten used to the medication and needs larger doses to do the same effect.”

P: “Yes, it is.”

In the example below, the participant has taken in the past more than the prescribed dosage. Nevertheless, today he keeps a lower dosage, even though, we can consider dependency as a barrier to cease that medication.

M: “It seems that you take the sleeping pill too often. Do you have trouble falling asleep? (...)”

P: “At night I take one pill, I take one pill, but when I'm very angry, around 3-4 in the morning, I have to take a half. It's one and a half pill.”

M: “But sometimes haven't you taken more? (...) Now you only take one and a half... is just that you used to take more...”

Taking medication is a habit for them as it becomes part of their routine, and they are used to it.

“I take two in the morning, one for the stomach and one for the heart pressure. Then I take another one at lunch for diabetes. And at night I take another one for diabetes, and what's more ...”

“I take two pills in the morning, one at noon and another at 8 pm.”

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

“The medication is regulated. And I always, always, always take it.”

4. Discussion

The attitudes and ideas reported by the elderly, about polypharmacy and deprescribing, may influence their willingness for deprescribing, which we can cluster into barriers and enablers to deprescribing. This study's results are consistent with and highlight previous frameworks, as we could also identify five main barriers and four main enablers.(12,18)

There was a general agreement between the participants regarding each theme. We identify some discordance regarding the theme 'appropriateness', where some participants found the medication still necessary and others not. There was also a paradoxical approach regarding the themes 'fear of symptoms return' and 'dislike of medication'. The theme 'influences' was a highly approached theme, especially the idea of patients' trust in their doctors.

As a barrier and an enabler, the 'appropriateness' theme was mentioned by the participants in our study and previously reported in others.(12,18)

Disagreement with the appropriateness of cessation, as a barrier, was implicit by the medication's benefit effect and the patient's acceptance of having a condition to which the medication is necessary. This ideas have also been observed in previous studies.(18–20) In Crutzen et al.,(19) participants attributed their wellbeing to the medication and mentioned its need for a specific disease due to its severity and the consequences of stopping. And as mentioned in Reeve et al.,(12,18) patients' memory of their clinical improvement when initiated the medication might be a motive to keep it in long-term use. Reeve et al.,(18) also highlights that other reason for older adults to assume medication effectiveness and benefit, especially in long term use, is the medication kept being prescribed, although not every prescription refill always comes with a formal medication review.

The lack of current harm was another reason implied to disagree with deprescription. This enabler is mentioned in another study regarding the lack of side effects.(18)

Desire to increase the dose of medication was implied as another motive to disagree with appropriateness of deprescription, as pointed in a previous review.(12) Adding this to medication benefit increases further the disagreement to cease.

Agreement with the appropriateness of cessation, as an enabler, was implicit by the lack of benefit or necessity of the medication, availability of alternative treatment, the experience of drug interactions and side effects, and mistrust in the original prescriber who initiated the medication, which is consistent with previous frameworks.(12,18)

The subtheme 'lack of benefit or necessity', because of condition/symptoms improved/resolved, was similarly and previously mentioned in other studies, with the participants' testimony of feeling well or with no more pain.(18,19) This idea might be explained by patients' focus on short-term outcomes rather than long-term outcomes, as stated in Crutzen et al.(19) This idea is especially true when applied to preventive medicines,

as mentioned in previous studies.(19,25) Contrarily, for others, evidence of efficacy in short-term could be a reason to keep a medicine,(19) reflected by the subtheme benefit of medication and long-term use.

A non-pharmacology treatment, as an alternative, was mentioned in our study, with the participant's sense of a positive outcome, favouring this subtheme as an enabler. Although differently, in Reeve et al.,(18) a better medication or lifestyle was mentioned as an alternative. One reason for their willingness to try alternatives could be the media or family/friends' positive influences.

Evidence shows that experiencing side effects might be a strong influence to deprescribe,(12,18,19) as two participants recalled in our study. Otherwise, although some other participants recalled experiencing side effects, it did not seem to be a trigger to be willing to cease the medicine. One reason for this might be their strong beliefs about the medication's benefit prevailing or their belief of no other alternatives available. This idea is consistent with Heser et al.,(31) who found out that "side effects do not affect patients in a sufficiently strong way to create a wish to stop". Further, patients' understanding that side effects might occur as part of taking medication,(12) and unawareness of the medication risks, and that those might be sometimes greater than the benefits, could contribute to this as well. As noted in a previous study, participants' awareness regarding medication risks was none, showing some reluctance to know.(25)

Drug interactions were also resembled by participants and raised concern to approach the doctor about it. This idea is consistent with Reeve et al.,(18) where concern regarding potential interactions was pointed as an enabler to withdrawal. Therefore, it is essential to give patients information about the medication and empower them to approach the matter with their doctor if a side effect/drug interaction happens.

Mistrust in the original prescriber who initiated the medication was previously reported as an enabler.(12) As with our results, one participant mentioned that he might not do what the doctor recommends without trust. Clyne et al.,(20) also remarks trust to be an influence to patients' attitudes about their medication, with patients having negative attitudes about it when their trust in a prescriber is negative.

A process is required for deprescription. That includes a discussion, between the health professional and the patient, with the explanation of what it is, why a medication is being recommended to stop and that it is on a trial basis only, and monitorization and follow-up.(18) In our study, we could see the patients' need to discuss it with a health professional and, as well as the reason a medication is being recommended to stop. The existence of a process, with discussion, will able them to make a decision, whether to or not follow deprescription. A discussion with the health professional could be either an enabler but also a barrier. As suggested in Zechmann et al.,(22) although the high patients' involvement and

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

shared decision making, patients might not follow their doctor suggestion if it does not align with their preferences and values.

Going forward with deprescription as a trial and having their doctors support were observed as enablers and are consistent with other studies.(18,19).

In this subtheme (discussion), the onus' approach also standouts. It was clear that some participants expect their doctors to take the first step on the deprescribing approach. One reason for that could be the patients trust in their doctors. Although according to Linsky et al.(24) it is not clear who should address deprescribing because it is a matter not symptom-driven, we believe that the willing should come from the patients too, once elderly's goals, preferences and values matter (15) and as they are the ones who may experience that something is not right and communicate to the health professional, as two participants mentioned to have done.

Adding to this subtheme (Discussion), we found out that the terms of “polypharmacy” and “deprescribing” were unfamiliar terms to them. We could explain this with health unawareness once it may be a less discussed subject in appointments. Time constrains may be a reason.(32) Turner and Tannenbaum et al.,(33) who conducted a study to know the older adult's familiarity with the term “deprescribing”, also found out that just a small portion (7%) of the participants were familiar with it. Additionally, “awareness of the term “deprescribing” was associated with a greater likelihood of initiating a deprescribing conversation with a healthcare professional”.(33) Therefore health appointments might be a good opportunity to capacity patients about it, including it into “common vernacular”, (33) and about their medication, risks and benefits. Always carefully, to not to worry patients with this information.(22)

The doctor takes an important role as either support (process theme) and an influence.(12,18) Pharmacists are also mentioned as an influence, as making recommendations about the medication (influence theme) or as someone to approach when considering ceasing a medicine (discussion subtheme). A reason for that is that they are easier to reach and are more frequently visited by the elderly to refill their prescriptions. Other studies also mention participants willing of pharmacists' involvement in deprescribing.(9) In Crutzen et al.,(19) pharmacists are mentioned with an advisory role but not on initiating it. Our study is not clear about the participant's ideas on this difference, and further discussion would be needed. Differently, Reeve et al.,(18) also mentions them briefly, with their role in deprescribing reduced to making recommendations to the doctor. One reason for that might be a less interdisciplinary approach, but that is essential for it.(32,34)

Patients' trust in their doctors was mostly implied by their doctors' medical knowledge and their doctors' knowledge about the patients' conditions. As so, as they are a figure of trust,

patients are satisfied with their medication and will not argue about it. As similar to other studies, patients recognize that the doctors hold the knowledge,(18,19,24) originating an “imbalance of power”.(20) Moreover, Gillespie et al.,(32) refers the doctor-patient relationship being seen and accepted as paternalistic by the older adults, who do not want to argue with him or put their knowledge into question by approaching any matter about the medication.

Contrarily, doctors influence may be an enabler for the same reasons mentioned above. Even though participants reported strong beliefs about their medication, they would go along with deprescribing if their doctor advised so. This idea is consistent with Reeve et al.,(18) and other studies,(19,20) where participants would follow deprescription if their doctor recommended it, because of trust and the doctors' medical knowledge. In this study, a few patients recalled deprescribing experiences recommended by their doctors, highlighting their influence in the adherence to deprescription.

Previous good and bad experiences were also mentioned to be an influence, as an enabler or a barrier, respectively, and as similarly to other studies.(18,19)

According to the results, some participants know their medication, regarding the number of medicines per meal or per system, but not its specific indications/functions. These findings are similar to Palagyi et al.,(21) where elderly were aware of the number of pills they were required to take but not of its indications. This finding, of limited knowledge regarding their medication, is common among patients taking multiple medicines and especially in the elderly, as they are, in general, a population with less literacy in health, as it is suggested in Clyne et al.(20) Although limited knowledge, they keep a strong belief regarding medication necessity. Patients' trust in their doctors may explain this position, as mentioned in the previous study,(20) and as we can tell from our results.

Dislike of medication, as an enabler, was mentioned as taking too many medicines. Otherwise, keeping a medicine because of fear of symptoms/condition return was also mentioned but as a barrier. These contradictory findings are similar to a previous study in Switzerland,(22) where patients may prefer to keep the medicine instead of “taking risks” with symptoms return. Therefore the fear of symptoms/condition return may outweigh the perceived “burden of treatment”, as mentioned in Zechmann et al.(22) When addressing deprescription, good communication and follow-up,(9) with the explanation of the risks being more significant than the benefits, is important and might overcome the barrier of fear of symptoms/condition return.(22)

Less treatment burden and cost are established benefits from deprescribing,(15) as well as, reported enablers to deprescription.(10,12) In our study, the cost was implied as an enabler. Although cost was not a problem for the participants because of the health discounts, if a medication was stopped, they could save money. Similarly, in Reeve et al.,(18) the cost was

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

found to be a positive outcome of deprescribing instead of the sole motivator. We believe that cost may not be the major influence once there are these health discounts, but it will depend on each person's income. In a previous study, the idea implied of "health coming first" also supports it as not being a major influencer.(25) Therefore, cost as an influence will depend on the medication subsidy schemes and insurance status from each country (12) and on each person's income.

Taking the medication is a habit for them because it becomes part of their routine, and they are used to it and might be a barrier when addressing deprescribing. This idea is mentioned in a previous study, where taking a medication is described as "something not thought about or as part of an established schedule of taking a number of other prescribed medications".(35)

Habit, regarding to addiction or dependency, was also implied as a barrier. Although our study explored general deprescribing instead of a single medication class deprescribing, the habit was mostly implied concerning the sleeping pills. It was indirectly implied as being used to the medicine, needing them to sleep, and with higher doses than they used to. Previous studies also identified habit as a barrier to deprescribing and also related to benzodiazepines or hypnotics.(25,31) Contrarily not finding a medication to cause dependency, was also mentioned, as in Kuntz et al.,(23) what enhances not finding medication a habit, as barrier too. Otherwise, fear of addiction/dependency was implied in some studies as an enabler,(12,19,25) but not in ours. One reason for that is the participants' strong beliefs about medication benefit which outweighs the rest.

4.1. Strengths

This type of method, focus group, allowed us to gather the data faster and in-depth opinions about participants' ideas and attitudes than with structured individual interviews.

Although not applied to all the participants, some deprescribing episodes were remembered by them during the focus group, giving it an extra value.

To add, this is one of the first studies to address the elderly's ideas and attitudes about deprescription in Portugal.

4.2. Limitations

Given the COVID-19 pandemic, we had to delate our study. Even though we could restart the study, it was not possible to gather a sample with the previous inclusion criteria as the number of enrollees in the centre was little. Therefore, age heterogenicity was one limitation.

Occasional little interaction between participants and the need to carry out sometimes focused interactions was another limitation.

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

Another limitation might be the generalizability application of the results because of a unique focus group and the participants being from a unique area.

5. Conclusion

The elderly's attitudes and ideas, regarding polypharmacy and deprescribing, are wide and uncertain as we could see through the different barriers and enablers.

The main barriers to deprescription identified were, the medication benefit and necessity, lack of harm and fear of symptoms return. The main facilitators were lack of benefit/necessity, burden of treatment, side effects/drug interactions experience. A discussion with a health professional about ceasing a medicine, showed to be essential for decision-making. Further, health professionals showed to be an influence, with pharmacists, besides doctors, having a role in deprescribing. Patient's trust in their doctors revealed to be an influence, as either a barrier or an enabler. Medication complexity and limited knowledge about it could be either a barrier or an enabler, as it could difficult the discussion, and could be a reason for them to be willing to simplify their medication.

The elderly, being a more vulnerable population to potentially inappropriate medications and adverse drug events, are the ones taking the most advantages from deprescription. Although the culture of diagnosing-prescribing prevails, deprescribing, when needed, must be seen as an improvement of the patient's treatment rather than an act of giving up.(22,34) Including the patients in the decision-making, taking into account their preferences and goals, informing them about their medication, benefits and risks, without increasing fear, will capacity them about their medication and empower them to approach or be more receptive about deprescribing.

Knowing these barriers and enablers will help health professionals to approach this theme, even though, not all patients are equal, regarding their attitudes, ideas and beliefs. Therefore, continuous research on elderly's attitudes and ideas might give a wider range of opinions. As seen in previous literature, further research on health professionals' points of views, regarding the barriers and enablers to deprescribe, and on the role of each one of them in the deprescribing process, would bring additional value, in order to reinforce deprescribing as a patient-centred process and become the deprescribing process a multidisciplinary approach, avoiding the system-related barriers.

5.1. Competing interests

The authors have declared no competing of interests.

6. Bibliography

1. Wallis K. Ethics: Ageing is not for the faint-hearted: are we making it worse? Polypharmacy-related harm in the elderly. *J Prim Health Care*. 2015;7(2):167.
2. Brahma DK, Wahlang JB, Marak MD, Ch Sangma M. Adverse drug reactions in the elderly. *J Pharmacol Pharmacother*. 2013;4(2):91-4. doi: 10.4103/0976-500X.110872.
3. Halli-Tierney AD, Scarbrough C, Carroll D. Polypharmacy: Evaluating Risks and Deprescribing. *Am Fam Physician*. 2019;100(1):32-38.
4. Masnoon N, Shakib S, Kalisch-Ellett L, Caughey GE. What is polypharmacy? A systematic review of definitions. *BMC Geriatr*. 2017;17(1):230. doi: 10.1186/s12877-017-0621-2.
5. Maher RL, Hanlon J, Hajjar ER. Clinical consequences of polypharmacy in elderly. *Expert Opin Drug Saf*. 2014;13(1):57-65. doi: 10.1517/14740338.2013.827660.
6. Simões P, Santiago LM, Simões J. Prevalence of polypharmacy in the older adult population within primary care in Portugal: a nationwide cross-sectional study. *Archives of Medical Science*. 2020. doi: 10.5114/aoms.2020.93537.
7. Simões PA, Santiago LM, Maurício K, Simões JA. Prevalence Of Potentially Inappropriate Medication In The Older Adult Population Within Primary Care In Portugal: A Nationwide Cross-Sectional Study. *Patient Prefer Adherence*. 2019;13:1569-1576. doi: 10.2147/PPA.S219346.
8. Reeve E, Thompson W, Farrell B. Deprescribing: A narrative review of the evidence and practical recommendations for recognizing opportunities and taking action. *Eur J Intern Med*. 2017;38:3-11. doi: 10.1016/j.ejim.2016.12.021.
9. Reeve E, Wiese MD, Hendrix I, Roberts MS, Shakib S. People's Attitudes, Beliefs, and Experiences Regarding Polypharmacy and Willingness to Deprescribe. *J Am Geriatr Soc*. 2013;61(9):1508-14. doi: 10.1111/jgs.12418.
10. Rozsnyai Z, Jungo KT, Reeve E, Poortvliet RKE, Rodondi N, Gussekloo J, et al. What do older adults with multimorbidity and polypharmacy think about deprescribing? The LESS study - a primary care-based survey. *BMC Geriatr*. 2020;20(1):435. doi: 10.1186/s12877-020-01843-x.
11. Reeve E, Gnjdjic D, Long J, Hilmer S. A systematic review of the emerging definition of 'deprescribing' with network analysis: implications for future research and clinical practice.: The emerging definition of 'deprescribing'. *Br J Clin Pharmacol*. 2015;80(6):1254-68. doi: 10.1111/bcp.12732.

12. Reeve E, To J, Hendrix I, Shakib S, Roberts MS, Wiese MD. Patient Barriers to and Enablers of Deprescribing: a Systematic Review. *Drugs Aging*. 2013;30(10):793-807. doi: 10.1007/s40266-013-0106-8.
13. Reeve E, Shakib S, Hendrix I, Roberts MS, Wiese MD. Review of deprescribing processes and development of an evidence-based, patient-centred deprescribing process: Patient-centred deprescribing process. *Br J Clin Pharmacol*. 2014;78(4):738-47. doi:10.1111/bcp.12386
14. Kua C-H, Mak VSL, Huey Lee SW. Health Outcomes of Deprescribing Interventions Among Older Residents in Nursing Homes: A Systematic Review and Meta-analysis. *Journal of the American Medical Directors Association*. 2019;20(3):362-372.e11. doi: 10.1016/j.jamda.2018.10.026
15. Woodford HJ, Fisher J. New horizons in deprescribing for older people. *Age Ageing*. 2019;48(6):768-75. doi: 10.1093/ageing/afz109.
16. Reeve E, Wolff JL, Skehan M, Bayliss EA, Hilmer SN, Boyd CM. Assessment of Attitudes Toward Deprescribing in Older Medicare Beneficiaries in the United States. *JAMA Intern Med*. 2018;178(12):1673-1680. doi:10.1001/jamainternmed.2018.4720.
17. Turner JP, Martin P, Zhang YZ, Tannenbaum C. Patients beliefs and attitudes towards deprescribing: Can deprescribing success be predicted? *Res Social Adm Pharm*. 2020;16(4):599-604. doi: 10.1016/j.sapharm.2019.07.007.
18. Reeve E, Low L-F, Hilmer SN. Beliefs and attitudes of older adults and carers about deprescribing of medications: a qualitative focus group study. *Br J Gen Pract*. 2016;66(649):e552-60. doi: 10.3399/bjgp16X685669.
19. Crutzen S, Baas G, Abou J, van den Born-Bondt T, Hugtenburg JG, Bouvy ML, et al. Barriers and Enablers of Older Patients to Deprescribing of Cardiometabolic Medication: A Focus Group Study. *Front Pharmacol*. 2020;11:1268. doi: 10.3389/fphar.2020.01268.
20. Clyne B, Cooper JA, Boland F, Hughes CM, Fahey T, Smith SM, et al. Beliefs about prescribed medication among older patients with polypharmacy: a mixed methods study in primary care. *Br J Gen Pract*. 2017;67(660):e507-18. doi: 10.3399/bjgp17X691073.
21. Palagyi A, Keay L, Harper J, Potter J, Lindley RI. Barricades and brickwalls – a qualitative study exploring perceptions of medication use and deprescribing in long-term care. *BMC Geriatr*. 2016;16(1):15. doi: 10.1186/s12877-016-0181-x.
22. Zechmann S, Trueb C, Valeri F, Streit S, Senn O, Neuner-Jehle S. Barriers and enablers for deprescribing among older, multimorbid patients with polypharmacy: an explorative study from Switzerland. *BMC Fam Pract*. 2019;20(1):64. doi: 10.1186/s12875-019-0953-4.

23. Kuntz J, Kouch L, Christian D, Peterson P, Gruss I. Barriers and Facilitators to the Deprescribing of Nonbenzodiazepine Sedative Medications Among Older Adults. *Perm J*. 2018;22:17-157. doi: 10.7812/TPP/17-157.
24. Linsky A, Simon SR, Bokhour B. Patient perceptions of proactive medication discontinuation. *Patient Educ Couns*. 2015 Feb;98(2):220-5. doi: 10.1016/j.pec.2014.11.010.
25. Macedo FMT. Atitudes do médico de família que influenciam a desprescrição na perspectiva do idoso. [dissertation]. Covilhã(PT):University of Beira Interior. 2020. Available from URL:<http://hdl.handle.net/10400.6/10710>. (in Portuguese)
26. Anderson RC, Pearson PD. A schema-theoretic view of basic processes in reading comprehension. In: Pearson PD, ed. *Handbook of reading research*. New York: Longman's Inc; 1984:255-91.
27. Silva IS, Veloso AL, Keating JB. Considerações teóricas e metodológicas. *Revista Lusófona de Educação*. [Internet] 2014 [cited 2020 Nov 11]; 26(26):175-190. Available from: <https://revistas.ulusofona.pt/index.php/rleducacao/article/view/4703>
28. Ritchie J, Lewis J, eds. *Qualitative research practice: a guide for social science students and researchers*. Sage; 2003.
29. Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. *BMJ*. 2000;320:114-6.
30. Bowen GA. Naturalistic inquiry and the saturation concept: a research note. *Qualitative Research* 2008;8(1):137-52. doi: 10.1177/1468794107085301
31. Heser K, Pohontsch NJ, Scherer M, Löffler A, Luck T, Riedel-Heller SG, et al. Perspective of elderly patients on chronic use of potentially inappropriate medication – Results of the qualitative CIM-TRIAD study. *PLoS ONE*. 2018;13(9):e0202068. doi: 10.1371/journal.pone.0202068.
32. Gillespie RJ, Harrison L, Mullan J. Deprescribing medications for older adults in the primary care context: A mixed studies review. *Health Sci Rep*. 2018;1(7):e45. doi: 10.1002/hsr2.45.
33. Turner JP, Tannenbaum C. Older Adults' Awareness of Deprescribing: A Population-Based Survey. *J Am Geriatr Soc*. 2017;65(12):2691-6. doi: 10.1111/jgs.15079.
34. Doherty AJ, Boland P, Reed J, Clegg AJ, Stephani A-M, Williams NH, et al. Barriers and facilitators to deprescribing in primary care: a systematic review. *BJGP Open*. 2020;4(3):bjgpopen20X101096. doi: 10.3399/bjgpopen20X101096.
35. Barter G, Cormack M. The long-term use of benzodiazepines: patients' views, accounts and experiences. *Fam Pract*. 1996;13(6):491-7. doi: 10.1093/fampra/13.6.491.

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

7. Appendices

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

7.1. Appendix 1 - Study's protocol

PROTOCOLO

CONHECER AS ATITUDES E IDEIAS DOS IDOSOS SOBRE A POLIMEDICAÇÃO E A DESPRESCRIÇÃO: UM ESTUDO QUALITATIVO

Autora: Nicole Foreman

Orientador: Prof. Doutor José Augusto Simões

Coorientador: Dr. Pedro Simões

Covilhã, setembro de 2020

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

IDENTIFICAÇÃO

Designação: Conhecer as atitudes e ideias dos idosos sobre a polimedicação e a desprescrição: um estudo qualitativo.

Executor: Nicole Foreman (aluna do 6º ano de Medicina);

Horizonte temporal: setembro e outubro;

População alvo: Utentes com 65 ou mais anos, polimedicados (5 ou mais medicamentos) do Centro de Dia da Associação Centro Social Sagrado Coração Maria do Ferro.

JUSTIFICAÇÃO E FINALIDADES

O crescimento da população idosa aliado a melhores cuidados de saúde conduziu a uma expansão das doenças crónicas e por sua vez a um aumento da prevalência de polimedicação nesta faixa etária. Entende-se por polimedicação a toma simultânea de 5 ou mais medicamentos. Em alternativa, esta também pode ser definida como a toma de medicamentos em excesso não necessários clinicamente, ou seja, sem indicação, não eficazes ou em duplicação terapêutica. Estudos apontam que cerca de trinta a setenta por cento dos idosos são polimedicados e que cerca de sessenta e oito por cento dos idosos em Portugal tomam um medicamento potencialmente inapropriado. A polimedicação nos idosos está associada a um maior risco de reações adversas, prescrições inapropriadas, menor adesão terapêutica, hospitalizações, custos e mortalidade. Neste sentido é importante uma revisão criteriosa da medicação dos idosos com a desprescrição dos medicamentos potencialmente inapropriados. Entende-se por desprescrição o processo de retirada ou redução da dose de um medicamento, promissor de causar mais dano que benefício, de forma supervisionada e segura. Este processo é influenciado por várias barreiras e fatores a favor, pelo que o conhecimento dos mesmos ajudará os profissionais de saúde a abordar de forma mais eficaz o processo de desprescrição. Vários estudos identificaram já algumas barreiras e fatores a favor que influenciam a vontade dos idosos em parar uma medicação. São exemplo, a perceção pelo doente de que uma medicação é adequada, medo de sintomas de abstinência, não gostar de tomar a medicação e a existência de um processo de desprescrição.

Assim, neste sentido, com este estudo pretende-se conhecer as atitudes e ideias dos idosos sobre a polimedicação e a desprescrição e inferir sobre as principais barreiras e fatores a favor da desprescrição.

OBJETIVOS

Conhecer as atitudes e ideias dos idosos sobre a polimedicação e a desprescrição.
Conhecer as principais barreiras e fatores a favor da desprescrição.

DESCRIÇÃO

Para alcançar os objetivos descritos propõe-se a realização de um estudo qualitativo com recurso à metodologia de “*focus group*”, realizando uma sessão audiogravada para discussão da temática da desprescrição, seguindo um guião previamente elaborado.

O grupo de discussão será constituído por oito idosos com sessenta e cinco ou mais anos polimedicados, inscritos em centro de dia, dos quais cinquenta por cento seriam mulheres e cinquenta por cento homens, e com a seguinte distribuição de idades, cinquenta por cento entre os sessenta e cinco e setenta e cinco anos e cinquenta por cento com mais de setenta e cinco anos. A sessão será moderada por dois moderadores e terá a duração de aproximadamente duas horas.

RECURSOS

Os recursos humanos necessários para a realização da sessão prevista serão a aluna do 6º ano de Medicina Nicole Foreman, um dos seus orientadores e a amostra selecionada de utentes do Centro de Dia.

Os recursos materiais necessários para a realização da sessão serão o guião impresso, um gravador, uma sala (ampla e arejada que dê para manter a distância de segurança entre os participantes) no Centro de Dia e um projetor (datashow) se disponível.

Os custos inerentes relacionam-se com a impressão do guião, não se prevendo qualquer patrocínio ou pedido de apoio financeiro.

Covilhã, setembro de 2020

7.2. Appendix 2- Informed consent form

CONSENTIMENTO INFORMADO, LIVRE E ESCLARECIDO PARA PARTICIPAÇÃO EM INVESTIGAÇÃO

Título do estudo: “Conhecer as atitudes e ideias dos idosos sobre a polimedicação e a desprescrição: um estudo qualitativo”.

Enquadramento: Estudo de investigação no âmbito de Tese de Mestrado, sob orientação do Professor Dr. José Augusto Simões e do Dr. Pedro Simões.

Explicação do estudo: O estudo tem como objetivos conhecer as atitudes e ideias dos idosos sobre a polimedicação e a desprescrição bem como as principais barreiras e fatores a favor da desprescrição. Para tal, o presente estudo passa pela realização de um “*focus group*”, com um grupo de idosos, que consiste na realização de uma sessão audiogravada em grupo, moderada por dois moderadores, onde serão discutidas as temáticas da desprescrição e polimedicação e feitas algumas perguntas sobre estas temáticas. Terá a duração de aproximadamente duas horas.

Condições e financiamento: O próprio investigador financiará o estudo e não há pagamentos a colaboradores ou participantes, sem compensação de despesas ou proveitos financeiros diretos ou indiretos resultantes do trabalho final. A participação será voluntária e não haverá prejuízo ou outros caso não queira participar ou abandonar o estudo a qualquer momento. O presente estudo está integrado no projeto de investigação de doutoramento do orientador Pedro Simões, médico interno da especialidade de Medicina Geral e Familiar na USF Pulsar em Coimbra e doutorando na Faculdade de Ciências da Saúde da Universidade da Beira Interior, designado de “Desprescrição: o olhar do próprio sobre a redução da polimedicação (DePil7-20)”, o qual foi submetido à Comissão de Ética da Universidade da Beira Interior, Comissão Nacional de Proteção de Dados e Comissão de Ética de todas as Administrações Regionais de Saúde.

Confidencialidade e anonimato: A gravação da sessão será de acesso exclusivo da investigadora e de seus orientadores, sendo posteriormente eliminada. Os dados e respostas dos participantes serão apresentados em absoluto anonimato. Estas informações destinam-se a serem apresentadas em Tese de Mestrado e serão apenas visualizadas e discutidas entre pessoas com formação médica, no âmbito de avaliação da aluna. O documento poderá ser publicado em absoluto anonimato para os intervenientes.

Investigador: Nicole Foreman, aluna do 6.º ano de Medicina da Faculdade de Ciências da Saúde da Universidade da Beira Interior.

Endereço eletrónico: a35400@fcsaude.ubi.pt

Por favor, leia com atenção a seguinte informação. Se achar que algo está incorreto ou que não está claro, não hesite em solicitar mais informações. Se concorda com a proposta que lhe foi feita, queira assinar este documento.

Assinatura de quem pede consentimento:

Declaro ter lido e compreendido este documento. Foi-me garantida a possibilidade de, em qualquer altura, recusar participar neste estudo sem qualquer tipo de consequências. Desta forma, aceito participar neste estudo e permito a audiogravação da sessão e a utilização dos dados e respostas que de forma voluntária forneço, confiando em que apenas serão utilizados para esta investigação e nas garantias de confidencialidade e anonimato que me são dadas pelo investigador.

Nome:

Assinatura: **Data:**/...../.....

SE NÃO FOR O PRÓPRIO A ASSINAR POR INCAPACIDADE

NOME:

BI/CC N.º: **DATA OU VALIDADE**/...../.....

GRAU DE PARENTESCO OU TIPO DE REPRESENTAÇÃO:

ASSINATURA

ESTE DOCUMENTO É COMPOSTO DE 2 PÁGINAS E FEITO EM DUPLICADO: UMA VIA PARA O INVESTIGADOR, OUTRA PARA A PESSOA QUE CONSENTE.

7.3. Appendix 3 – Focus Group's script

Guião

OBJETIVOS:

- Conhecer as atitudes e ideias dos idosos sobre a polimedicação e a desprescrição.
- Conhecer as principais barreiras e fatores a favor da desprescrição.

1ª Parte - Polimedicação

- I. Já ouviram falar sobre polimedicação? Sabem o que é?
- II. Apresentação sobre a polimedicação:
 - Definição;
 - Diferença entre nº de medicamentos e nº de comprimidos;
 - Riscos da polimedicação;
 - Diferença entre medicação apropriada e inapropriada - medicamentos potencialmente inapropriados.
- III. Perguntas:
 - Como se sentem em relação à medicação que tomam? (gostam da medicação, sentem que lhes faz bem ou mal, sentem que causa algum efeito indesejado)
 - Como se sentem em relação ao número de comprimidos que tomam?
 - Consideram que os médicos prescrevem muitos medicamentos?
 - Sabem o motivo pelo qual tomam cada medicamento?
 - Acham que tomam medicação a mais de que não precisam?
 - Consideram que os medicamentos criam habitação? Consideram que as pessoas deveriam pará-los durante algum tempo de vez em quando?

2ª Parte - Desprescrição

- I. Já ouviram falar sobre desprescrição? Sabem o que é?
- II. Apresentação sobre desprescrição:
 - Definição;
 - Fases do processo de desprescrição.
- III. Perguntas:
 - Gostavam de tomar menos medicamentos?
 - Alguma vez deixaram de tomar algum medicamento?
 - O que pensam sobre a desprescrição de um medicamento, ou seja, em parar um medicamento com acompanhamento do médico? Concordam ou discordam? Porquê?
 - Acham importante parar uma medicação que já não esteja indicada ou esteja a causar efeitos secundários?
 - O que vos preocupa em parar alguns medicamentos? Porquê?
 - O que facilitaria aceitarem retirar alguns medicamentos? Porquê?
 - Se o seu médico sugerisse parar de tomar um medicamento estariam dispostos a fazê-lo? Porquê?
 - A opinião/ experiência de um familiar/amigo seria importante para vocês?
 - Quais as atitudes do médico que poderiam ajudar a parar um medicamento? Como é que o vosso médico os poderia ajudar a tomar a decisão de parar uma medicação?

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

8. Annexes

8.1 Annex 1 - Approval from the Ethics Committee of the Beira Interior University



Comissão de Ética
Universidade da Beira Interior

comissaoeetica@ubi.pt
Convento de Santo António
6201-001 Covilhã | Portugal

Parecer relativo ao processo n.º CE-UBI-Pj-2017-029

Na sua reunião de 10 de outubro de 2017 a Comissão de Ética apreciou, retrospectivamente, a documentação científica submetida referente ao pedido de parecer do projeto, **"Deprescribing: a Portrait and Out-comes of the Reduction of Polypharmacy in Portugal (DePil17-20)"** do proponente **Pedro Augusto Gomes Rodrigues Marques Simões**, a que atribuiu o código n.º CE-UBI-Pj-2017-029.

Na sua análise não identificou matéria que ofenda os princípios éticos e morais sendo de parecer que o estudo em causa pode ser aprovado.

Covilhã e UBI, 25 de outubro de 2017

O Presidente da Comissão de Ética

Professor Doutor José António Martinez Souto de Oliveira
Professor Catedrático

To know the elderly's ideas and attitudes about polypharmacy and deprescribing

8.2. Annex 2 - Approval from the Health Regional Administration of the Centre



COMISSÃO DE ÉTICA PARA A SAÚDE

PARECER FINAL: Favorável	DESPACHO: <i>Handwritten signature</i> 28.06.2018 Conselho Diretivo da A.R.S. do Centro, I.P.
ASSUNTO:	<p>Título: "Deprescribing: a Portrait and Out-comes of the Reduction of Polypharmacy in Portugal (DePi17-20) (projeto de tese de doutoramento)</p> <p>Autores: Pedro Augusto R Marques Simões (PI) (UBI), Luiz Santiago (FM UC) e José Augusto Rodrigues Simões (UBI) – 12 / 2018</p> <p><i>Handwritten signature</i> Dr. Rosa Rita Mendes Vogal, <i>Handwritten signature</i> Dr. Luís Manuel Mútilo Mendes Cabral Vogal, <i>Handwritten signature</i> Dr. Mário Ruivo Vogal,</p>

Objetivos: Avaliar a capacidade dos idosos para aceitarem e valorizarem a desprescrição. Também se pretende avaliar a polimedicação, caracterizar a prescrição inapropriada no idoso, identificando as principais barreiras e facilitadores, avaliar a automedicação.

O estudo será dividido em 3 fases:

Estudo transversal, analítico da prevalência e padrões da polimedicação, nomeadamente perfis sociodemográficos, clínicos e medicamentosos, nos idosos (≥ 65 anos) que frequentam os Cuidados de Saúde Primários (CSP) em Portugal;

Estudo transversal, em triangulação, das barreiras e facilitadores percebidos pelos pacientes, vontade em serem sujeitos a desprescrição e vontade em automedicarem-se;

Ensaio clínico não medicamentoso randomizado com duração de 6 meses sobre o impacto da capacitação dos idosos na sua vontade em serem sujeitos a desprescrição e na sua qualidade de vida.

As primeiras duas fases terão lugar em Unidades de CSP das cinco Regiões Administrativas de Saúde e das duas Regiões Autónomas, de forma a obter uma amostra representativa da geografia nacional.

A última fase terá lugar apenas em Unidades da região Centro (Aveiro, Castelo Branco, Coimbra, Guarda, Leiria e Viseu).

Nas duas primeiras fases serão convidados médicos de família (MF) através de listagens existentes de MF aderentes a projetos anteriores. Após esta seleção, os que aceitarem participar irão recrutar os seus pacientes. O tamanho da amostra nestas duas primeiras fases é no mínimo 385 idosos [para um intervalo de confiança (IC) de 95% e um erro de estimação máximo de 5%]. Assumindo que cada MF incluirá no mínimo 6 pacientes num período de 3 semanas, serão recrutados no mínimo 65 MF, com distribuição geográfica representativa da distribuição da população idosa, segundo dados do Pordata (www.pordata.pt).

To know the elderly's ideas and attitudes about polypharmacy and deprescribing



COMISSÃO DE ÉTICA PARA A SAÚDE

Na terceira fase serão convidados apenas MF da região Centro. Serão criados dois grupos com tamanho mínimo de 190 pacientes cada, sendo necessário no mínimo 64 MF. Os distritos da região Centro serão aleatorizados para um dos grupos. No grupo de intervenção serão fornecidas ferramentas de capacitação e negociação aos MF acerca de como abordar o problema da polimedicação. A informação fornecida resultará dos resultados da fase 2.

Houve pedido e aprovação pela CNPD. Há um parecer positivo da Comissão de Ética da UBI.
O consentimento informado é aceitável.

Não existem constrangimentos éticos aceitáveis, embora existam aspetos metodológicos discutíveis mas que não comprometem a ética.

O Relator e Presidente da CES-ARSC

Prof. Doutor Carlos A Fontes Ribeiro